

**IN THE UNITED STATES DISTRICT COURT
DISTRICT OF NEW MEXICO**

**STEPHEN TORRES, as Personal Representative
of the Estate of CHRISTOPHER TORRES, deceased,**

Plaintiff,

v.

No. CIV 12-1048 RB/KBM

**CITY OF ALBUQUERQUE, ex rel.
ALBUQUERQUE POLICE DEPARTMENT;
CHRISTOPHER BROWN; and
RICHARD HILGER,**

Defendants.

**PLAINTIFF'S MOTION TO LIMIT THE TESTIMONY OF DEFENDANTS'
CRIMINOLOGY EXPERT RONALD MARTINELLI, PH.D**

Plaintiff Stephen Torres, as Personal Representative of the Estate of Christopher Torres, deceased, through his attorneys, McGinn, Carpenter, Montoya & Love, P.A., and pursuant to Federal Rules of Evidence 702 and 403 and *Daubert v. Merrell Dow Pharmaceuticals*, 509 U.S. 579 (1993), respectfully requests that the Court enter an Order limiting the testimony of Defendants' expert witness Ronald Martinelli, Ph.D., to his actual area of expertise – criminology. Dr. Martinelli's testimony should be limited to matters within the field of criminology; he should be prohibited from holding himself out as an expert in biomechanics, human factors, or psychophysiology; and his testimony regarding his theories of "occultation" and "chemical dump" should be excluded as being beyond his area of expertise.

INTRODUCTION

During the trial of this case, Defendants intend to offer the expert testimony of Dr. Martinelli, an expert witness in law enforcement, regarding the forensic evidence, policies and procedures and to respond to Plaintiff's evidence that there was a culture of use of excessive force at APD. Dr. Martinelli has a doctorate degree in criminology and a master's degree in

public administration. He is a former law enforcement officer and administrator, and now a consultant. Plaintiff does not dispute his qualifications to testify about the hiring decisions of APD, its training and supervision of the officers, and the forensic evidence and investigation into the shooting. However, Plaintiff does take issue with Dr. Martinelli overreaching to call himself an expert in areas in which he is not qualified and in which Defendants did not identify him as an expert. *See Ex. A*, City's Expert Disclosure. Defendants intend to offer his testimony on several subjects that are outside of his area of expertise, and those portions of his testimony should be excluded pursuant Fed. R. Evid. 702 and *Daubert*, as well as Fed. R Evid. 403. Accordingly, the Court should prohibit Dr. Martinelli from claiming to be an expert in areas other than criminology and limit his testimony to matters that are within his field of expertise.

Defendants intend to offer Dr. Martinelli as an expert in biomechanics, human factors, and psychophysiology, despite his lack of qualifications in those areas. *Ex. B*, Martinelli dep. 22:14-17; 22:24-25. The City intends to call him to offer opinions in the following areas, which he is unqualified to testify about and which, therefore, are unreliable and unfairly prejudicial:

- whether the independent witness to the events leading up to the shooting experienced “occlusion,” i.e., whether she really witnessed certain events or only believes she did based on what she heard;

- whether the independent witness should be discredited based on the psychological theory of a “chemical dump” that occurs when a person is under stress.

Ex. B, Martinelli dep. 136:1-8. In the context of expressing these opinions, Dr. Martinelli holds himself out as an expert in biomechanics and the psychology sub-areas of human factors and psychophysiology. He has no expertise in these areas.

Dr. Martinelli is a criminologist and consultant with experience as an investigator, administrator, and police officer. *See Ex. C*, Martinelli CV at 1-2. His post-graduate educational background is in criminology, public administration and justice administration, and criminal law. *See id.* at 2. Dr. Martinelli's education and experience in law enforcement, as well as his publications and training manuals in the field of criminology, are proper bases for expert testimony regarding criminology and law enforcement policies, procedures, and practices. However, he is not qualified to provide testimony as an expert in biomechanics, human factors, or psychophysiology. Allowing Dr. Martinelli to hold himself out as an expert in these fields in front of a jury despite his lack of qualifications would cause the jury to give unwarranted weight to his testimony, thereby causing Plaintiff to suffer unfair prejudice. Therefore, in addition to limiting his testimony under Rule 702, the Court should prohibit Defendants from offering Dr. Martinelli as an expert in disciplines other than criminology pursuant to Rule 403.

ARGUMENT

The Federal Rules of Evidence permit an expert witness to testify in the form of an opinion or otherwise, provided that the witness "is qualified as an expert by knowledge, skill, experience, training, or education," and "the expert's scientific, technical, or other specialized knowledge will help the trier of fact to understand the evidence or to determine a fact in issue." Fed. R. Evid. 702. An expert witness, unlike a lay witness, may testify without having first-hand knowledge of an event. "Presumably, this relaxation of the usual requirement of firsthand knowledge ... is premised on an assumption that the expert's opinion will have a reliable basis in the knowledge and experience of *his discipline*." *Id.* at 592 (emphasis added). Because of the wide latitude given to expert witnesses, it is important for the Court to ensure that the witness possesses the necessary qualifications to provide the testimony given. "Rule 702 compels the district court to perform a 'gatekeeping' function concerning the admissibility of expert

testimony to ensure that speculative and unreliable opinions do not reach the jury.” *Estate of Gilliam v. City of Prattville*, 667 F. Supp. 2d 1276, 1294 (M.D. Ala. 2009) (citing *Daubert*, 509 U.S. at 589 n.7). Determining whether the expert is qualified is the Court’s first task in its gatekeeping role:

The first test under Rule 702 is whether the witness offering the expert testimony is qualified to do so. There is no bright-line rule for determining whether a given witness is qualified to offer expert testimony. Rather, the decision is inherently case specific and therefore lies within this Court’s discretion. Nevertheless, Rule 702 does offer a basic framework for evaluating a witness’s qualification by providing that expertise must be established by one or more of the following bases: knowledge, skill, experience, training, and education.

Gilliam, 667 F. Supp. 2d at 1294.

To be admissible, in addition to meeting the requirements of Rule 702 and *Daubert*, proffered expert testimony must “pass muster under Federal Rule of Evidence 403.” *Tom v. S.B. Inc.*, 2013 U.S. Dist. LEXIS 90277, at *3 (D.N.M. 2013).

I. DR. MARTINELLI IS NOT AN EXPERT IN THE FIELDS OF BIOMECHANICS, PSYCHOPHYSIOLOGY, OR HUMAN FACTORS AND SHOULD NOT BE PERMITTED TO HOLD HIMSELF OUT AS SUCH.

Dr. Martinelli’s expertise is as a criminologist, law enforcement officer, and forensic investigator, not as a psychologist or biomechanical physicist. Dr. Martinelli has no background in biomechanics; he does not have a degree in biomechanics and did not study biomechanics during his master’s degree programs or Ph.D. program. **Ex. B**, Martinelli dep. 24:6-18. Dr. Martinelli does not have an educational background in a related scientific field such as physics. See *Hernandez v. City of Albuquerque*, 2004 U.S. Dist. LEXIS 30802 at *2 (D.N.M. Jan. 29, 2004). In *Hernandez*, the court allowed the biomechanical expert testimony of a witness who had a Ph.D. in physics and who was an “accredited physicist with practical experience dealing in force analysis, shock physics, impact damage effects, and biomechanics.” Similarly, in *Bourland v. City of Redding*, 2013 U.S. Dist. LEXIS 5476, at *9 (E.D. Cal. Jan. 11, 2013), the

court admitted the testimony of an expert who had a bachelor's in physical education, a master's in human kinetics, and a Ph.D. in biomechanics to give testimony as a biomechanical expert regarding whether handcuffs had caused injuries to the plaintiff's nerve. Dr. Martinelli has no such educational qualifications. Additionally, Dr. Martinelli has no qualifications as an expert in psychophysiology, which is "the science of how the mind and body interact." *United States v. Gilliard*, 133 F.3d 809, 811 (11th Cir. 1998).

Nor does Dr. Martinelli have the background in psychology to testify as an expert in human factors. Dr. Martinelli's testimony is based on his analysis of witness statements, a visit to the scene of the shooting and the neighbor's house to the back where an independent witness viewed and heard the incident, forensic reports, photographs, diagrams, and reports by other experts who intend to testify in this case. This is a law enforcement officer's testimony, not the testimony of a biomechanics, psychophysiology, or human factors expert.

A. *Dr. Martinelli is not a Biomechanics Expert, and his Testimony is not based on Principles of Biomechanics.*

Dr. Martinelli's purported expertise in biomechanics is based on a few seminars and conferences that he has attended during his professional career. **Ex. B**, Martinelli dep. 24:6-18. Dr. Martinelli has never been listed as an expert in biomechanics in a court case. For each case in which he has testified, he was listed as a law enforcement expert. *Id.* 28:15-29:1. Dr. Martinelli testified in his deposition that his prior "biomechanics" testimony consisted of opinions regarding whether the forensic evidence matched the testimony of witnesses and the statements of officers, based on his review of the evidence. *Id.* He stated that his expertise in biomechanics involves "[t]aking statements, looking at anatomical diagrams, looking at autopsies, looking at forensic evidence, reviewing statements, reviewing video of movements and then analyzing all of those components and trying to render reasonable determinations as to

whether they all reconcile/support each other.” **Ex. B**, Martinelli dep. 23:10-15. Dr. Martinelli agreed that this is “part of what police detectives do.” *Id.* 23:16-17.

Dr. Martinelli described biomechanics as the study of movements of the body and whether those movements were possible in light of the forensic evidence. *Id.* 23:1-4. However, that is not an accurate description of the discipline and is closer to a description of what forensic investigators do. Biomechanics is in reality a broad field of science. “Biomechanics is the study of the structure and function of biological systems by means of the methods of mechanics.” Herbert Hatze, *The Meaning of the Term Biomechanics*, 7 J. Biomechanics 189–190 (1974). Biomechanics has recently been defined as “the application of mechanics principles to explore living (i.e., adaptable) systems.” Richard A. Brand, M.D., *Biomechanics or Necromechanics? Or How to Interpret Biomechanical Studies*, 22 Iowa Orthopaedic J 112 (2002). In the context of expert testimony, courts have defined biomechanics as “the science concerned with the action of forces, internal and external, on the living body.” *Finn v. BNSF Ry. Co.*, 2013 U.S. Dist. LEXIS 16557, at *6 (D. Wyo. Feb. 6, 2013) (quoting Stedman’s Medical Dictionary (25th Ed., 1989)). “Biomechanical experts have extensive knowledge about how human bodies move when forces are applied to them....” *Finn*, 2013 U.S. Dist. LEXIS 16557 at *6.

A similar issue arose when the Tenth Circuit Court of Appeals reviewed a decision of the District Court for the District of New Mexico on a *Daubert* motion regarding the testimony of an accident reconstruction expert who tried to pass as a biomechanics expert. The court noted that “[b]iomechanics is ‘the study of the action of external and internal forces on the living body, especially on the skeletal system.’” *Tuato v. Brown*, 85 Fed. Appx. 674, 677 (10th Cir. 2003) (citing Random House Unabridged Dictionary 210 (2d ed. 1993)). The court explained that “[b]iomechanics is distinct from accident reconstruction, which [the accident reconstruction

expert] defined as ‘a combination of science and art that relates to determining how a collision occurred and then looking at the factors leading up to the collision, in terms of occupant and vehicle behavior preceding the crash.’” *Id.* Although the witness was an expert in accident reconstruction, he was not an expert in biomechanics. *See id.* at 677-78. Similarly, here, Dr. Martinelli is an expert in police investigations and criminology, but he is not an expert in biomechanics. Like accident reconstruction, law enforcement forensic investigations may at times draw from such disciplines as biomechanics, psychophysiology, and human factors, but that does not mean the people who conduct those investigations are experts in the fields of science that sometimes play a role in those investigations.

Moreover, Dr. Martinelli’s deposition testimony demonstrates that his opinions are not based on biomechanics. He proposes to testify that the officers are telling the truth when they claim that Mr. Torres disarmed Officer Hilger during the confrontation in the Torres’ backyard, and that the independent witness is incorrect in believing that Officer Hilger actually drew his weapon and threatened Mr. Torres with it. **Ex. D**, Martinelli Rule 26 Report at 40-46. Rather than a specialized area of biomechanics, it is clear from Dr. Martinelli’s testimony that he is simply proposing to testify about whether the scenarios described by Christie Apodaca, Officer Brown, and Officer Hilger are possible in light of the physical evidence, based on his experience in law enforcement. He concludes that the officers’ version of the story – that Mr. Torres disarmed Officer Hilger – is more plausible than that of the eyewitness based on the following analysis:

... if you understand what it’s like to be in a very dynamic fight, a struggle for your life, the T-shirt as you reach forward – I’ll just stand up and do it, for God’s sakes. If I’m – let’s just do this. Let’s just do an inside waistband hold. ... If I’m reaching across, and that’s what the statement is, Mr. Torres is laying here. Hilger is to the right side. He’s reaching across the left side of Mr. Torres over

past Detective Brown to get that radio. Just watch what happens. Do you see that come off of the gun? How is that not coming off of the gun?

...

Q. Essentially, is there any forensic evidence that ... indicates that Christie Apodaca could not have seen this happen?

A. I think that Christine Apodaca states specifically that she couldn't see the right side of Mr. Torres and that makes total sense to me, because she was on the left side, the far left side. She was 58 feet away.

And we have a suspect who is partially prone on the ground, stomach down, attempting to post up on his left side. And we have another detective that's struggling with Mr. Torres who is also on his left side.

So Ms. Apodaca's view is partially blocked by Detective Brown who's on Mr. Torres's left side, partially obscured by the fact that Mr. Torres is down on the ground in a prone position and the fact that his right side does not face her. And as a matter of fact, she said that she couldn't see his right arm.

Q. And isn't that all something that a layperson can determine based on the pictures, her testimony, the conflicting testimony?

A. No, not necessarily.

Ex. B, Martinelli dep. 210:19-211:20; 213:25-214:20. This analysis demonstrates that Dr. Martinelli's purported biomechanical-based expert testimony is in fact based on his comprehensive analysis as a law enforcement investigator. Dr. Martinelli does not apply any methodology other than the methodology of a law enforcement investigator. No reason exists to dress up his testimony as being grounded in biomechanics other than to lend his testimony more weight than it deserves. For those reasons, Plaintiff asks that the Court prohibit Dr. Martinelli from holding himself out as an expert in biomechanics.

B. Dr. Martinelli is not an Expert in Psychophysiology or Human Factors, his Testimony is not based on any Expertise in those Disciplines, and his Opinions Regarding Sub-Specialties of Psychology are Inadmissible.

Dr. Martinelli intends to bolster his testimony regarding the independent eyewitness Christie Apodaca's testimony by stretching his law enforcement expertise into that of a human factors and psychophysiology expert. He proposes to testify that the jury should not believe Ms. Christie Apodaca's testimony because he claims she experienced:

- a “chemical dump” from the brain when experiencing this stressful event, thus affecting her ability to accurately remember the event; and
- “occultation,” a psychological phenomenon that caused her to think she saw the officers and Christopher Torres through the slats of the fence in a struggle in the back yard, when Dr. Martinelli claims she actually only heard sounds.

Ex. D, Martinelli Rule 26 Report at 42; **Ex. B**, Martinelli dep. 136:1-8.

Similarly to his purported expertise in biomechanics, Dr. Martinelli’s purported expertise in psychophysiology and human factors comes from his experience as a forensic criminologist, not from any advanced degrees or experience in those specific scientific fields. *See Ex. B*, Martinelli dep. 33:15-25. Dr. Martinelli admits that he is not a psychologist or a forensic psychologist. *Id.* 31:1-4. His college psychology education consisted of two lower-level undergraduate courses, and two or three seminars that he attended while earning his Ph.D. *Id.* 31:5-12; 32:14-33:1. He is not a board-certified psychologist. *Id.* 33:2-6. Despite the lack of formal training or specific experience in the discipline, Dr. Martinelli intends to hold himself out as a psychophysiology expert. In essence, Dr. Martinelli proposes to tell the jury that he is an expert in psychophysiology because of his background as a forensic criminologist. *Id.* 33:20-25.

Dr. Martinelli’s one publication that is even related to psychophysiology deals with the effects of TASERS on human subjects. *Id.* 34:7-20. His studies of psychophysiology have dealt primarily with how officers react to encounters with citizens, rather than psychophysiological responses of citizens encountering police officers, or the psychophysiological responses of witnesses. *Id.* 37:9-13. His purported expertise regarding “brain dumps” and other psychophysiological topics stems from his experience investigating officer-involved shootings, reviewing witness interviews, and watching witness depositions. *Id.* 139:20-140:8. His knowledge of the chemicals comes from undergraduate classes, not advanced study. *Id.* 141:5-11. He has conducted no studies in this case of the psychophysiological reaction experienced by

Ms. Apodaca but instead relies on her statements and testimony, in which she described her state of mind as being “shocky” and under stress. **Ex. B**, Martinelli dep. 141:12-142:16. In Dr. Martinelli’s analysis of Ms. Apodaca’s testimony, he relied not on methods of psychophysiology but rather on his “collective knowledge of education and training and experience to assist me in the analysis of stress-induced incidents, which in my area of practice tends more likely than not to be involved in police practices and uses of force.” *Id.* 34:1-5.

Dr. Martinelli’s testimony demonstrates that his opinions that are purportedly based on his expertise in psychophysiology or human factors are actually based on his expertise as a law enforcement officer or detective. For example, he opines that eyewitness Christie Apodaca’s statement that she saw Hilger punching Christopher Torres, stop, draw a gun, point at Christopher and yell “I’m going to shoot you. I’m going to shoot you,” is factually incorrect. Dr. Martinelli’s reasoning is not scientifically based but rather based on the testimony of the officers, his factual inferences, and the forensic evidence as he interprets it. *Id.* 205:14-208:7. When asked about what expertise he could provide to explain what Christie Apodaca saw of the incident, Dr. Martinelli testified:

Well, I think it takes an expert with my expertise in combatives and in firearms to discuss the dynamics of a fight, a struggle, how quickly those things take place, put that in perspective from the distance that she had, the environmental obstructions that she had, which were looking with one eye, a right eye at an extremely -- during an extremely stressful period when chemicals are dumping into a body, from a slat in a fence, either a knothole or, as she admits, finally, a slat in the fence that was at most three-quarters of an inch, usually pretty much a half an inch, but even giving it three-quarters an inch, from that distance when you have the obstruction of one detective, you have the person prone on the ground and she can’t even see the entire right side of this person’s body.

Id. 215:5-20. These are all observations that an expert in criminology can make (or even that a lay person can make) without stretching to portray the testimony as being based on psychophysiology or biomechanics.

Dr. Martinelli holds himself out as an expert in human factors based on having read numerous articles about the phenomenon of how witnesses' perception and memory are impacted by stressful or traumatic events. He has no specialized experience or training in psychophysiology or psychology and has conducted no studies, worked in the field of psychology, or been peer-reviewed in these disciplines, aside from one article relating to the effects of TASER shocks. Dr. Martinelli's experience is in law enforcement. While he has investigated numerous crimes, has interviewed many witnesses, and has studied how police officers react after using deadly force, he is not qualified to hold himself out as an expert in human factors or psychophysiology. Dr. Martinelli proposes to testify that about the "chemical dump" from the brain that occurs when a person witnesses or experiences a stressful event and how the chemicals released in the body affect the person's ability to later accurately remember an event. In other words, Dr. Martinelli intends to testify that Christie Apodaca is not a reliable witness because she was under stress and that the officers' interviews the day after the shooting are less reliable than the stories they told a year later in Court after having practiced with their lawyers. This is simply an attempt by the Defendants to attack the credibility of a witness using bare speculation dressed up as science, and it will unfairly prejudice the jury.

Dr. Martinelli also proposes to testify as a human factors expert regarding a phenomenon he calls "occultation." He describes occultation as the psychological phenomenon when a witness hears something and thinks she sees something, but does not actually see it. He intends to testify that Christie Apodaca must have experienced occultation rather than actually seeing the officers and Christopher Torres through the slats of the fence in a struggle in the Torres yard. Dr. Martinelli does not have the qualifications as an expert in human factors to discuss this phenomenon from a scientific standpoint. Based on his qualifications as a law enforcement

expert, he may offer an opinion about the likelihood that Ms. Apodaca saw what she testified to seeing, but allowing him to testify about “occultation” would give undue weight to his testimony, as it is not based on scientific expertise.

III. DR. MARTINELLI SHOULD BE PROHIBITED FROM HOLDING HIMSELF OUT AS AN EXPERT IN BIOMECHANICS, PSYCHOPHYSIOLOGY, OR HUMAN FACTORS PURSUANT TO RULE 403.

Under Rule 403, “[t]he court may exclude relevant evidence if its probative value is substantially outweighed by a danger of one or more of the following: unfair prejudice, confusing the issues, misleading the jury, undue delay, wasting time, or needlessly presenting cumulative evidence.” Allowing Dr. Martinelli to testify as an expert in biomechanics, psychophysiology, and human factors, when his testimony is truly based on his experience and knowledge as a law enforcement officer and detective, would unfairly prejudice the jury by placing undue weight on his testimony. If the Court permits Dr. Martinelli to hold himself out as an expert in those fields, the jury will be misled into believing that his testimony is based on scientific evidence, rather than forensic investigative work and interviews, which provide the actual basis for his testimony. The Court should deny Defendants their attempt to improperly bolster the disputed and conjectural conclusions of this witness by suggesting that he has scientific credentials that he does not have.

CONCLUSION

For the reasons stated more particularly herein, Plaintiff requests that the Court enter an Order limiting Dr. Martinelli’s testimony to his area of expertise, which is criminology, and prohibit him from giving opinions based on areas outside of his expertise, such as biomechanics and psychophysiology.

Respectfully submitted,



/s/ Kathleen J. Love

Kathleen J. Love
Michael E. Sievers
Randi McGinn
McGinn, Carpenter, Montoya & Love, P.A.
Counsel for Plaintiffs
201 Broadway Blvd., SE
Albuquerque, NM 87102
Phone: (505) 843-6161
Fax: (505) 242-8227

CERTIFICATE OF SERVICE

I HEREBY CERTIFY that a copy of the foregoing pleading was served upon all counsel of record via electronic mail on this the 21st day of February, 2014. Furthermore, I caused the foregoing to be electronically filed through the Second Judicial District Court Odyssey File & Serve system, which caused all counsel of record to be served by electronic means:

Luis E. Robles
Robles, Rael & Anaya, PC
500 Marquette Ave NW, #700
Albuquerque, NM 87102
luis@roblesrael.com

W. Ann Maggiore
Butt, Thornton & Baehr, PC
P.O. Box 3170
Albuquerque, NM 87190
wamaggiore@btblaw.com

/s/ Kathleen J. Love

Kathleen J. Love